

BOARD OF ENVIRONMENTAL REVIEW
AGENDA ITEM
EXECUTIVE SUMMARY FOR ACTION ON RULE ADOPTION

AGENDA # II.B.1.

AGENDA ITEM SUMMARY The Board has proposed amending the nondegradation rules regarding definitions of advanced wastewater treatment, and has proposed a new rule regarding advanced wastewater treatment.

LIST OF AFFECTED RULES Amend ARM 17.30.702; New rule ARM 17.30.718.

AFFECTED PARTIES SUMMARY The rule amendments and new rule will affect vendors/manufacturers of advanced wastewater treatment systems and provide them with definite criteria for determining whether their wastewater systems meet the state's criteria for advanced treatment of nitrogen and other contaminants. The rule amendments and new rule will also affect homeowners and business owners who need to use wastewater systems that reduce nitrogen in the effluent and will most likely provide those people with more options when choosing an advanced wastewater treatment system. Increased options will hopefully also increase competition and reduce consumer costs.

SCOPE OF PROPOSED PROCEEDING The Board is considering final action on adoption of amendments and additions to the above-referenced rules as proposed in the Montana Administrative Register.

BACKGROUND Some subsurface wastewater treatment systems (SWTS) are designed to treat and remove nitrogen from the raw wastewater. The Nondegradation Rules [ARM 17.30.702(9)] include a classification of SWTS that remove at least 60% of the nitrogen from the measured raw wastewater influent concentration. These systems are called level 2 SWTS. Level 2 SWTS are needed in certain situations to meet the nondegradation limits for nitrogen impacts to ground water (or surface water in some cases). The dilution calculation used to predict nitrogen concentrations at the end of a ground water mixing zone uses a lower effluent nitrogen concentration (24 mg/L) when the proposed SWTS is a level 2 system. Reducing the effluent nitrogen concentration in the mixing zone dilution equation to 24 mg/L (as compared to 50 mg/L for a SWTS that is not classified as level 2) increases the probability that the proposed SWTS will meet the nondegradation concentration limit at the end of the mixing zone. In addition, the nondegradation nitrogen concentration limit at the end of the mixing zone is higher for a level 2 SWTS (7.5 mg/L) than for SWTS that are not classified as level 2 (5 mg/L).

The current nondegradation rules and Department design circular DEQ-4 require that the level 2 classification for a SWTS shall be based upon the percent reduction of nitrogen as measured from raw influent. Due to the re-circulating design of many nitrogen-reducing SWTS, it is not possible to collect an untreated raw influent sample from the septic tank (this is because the recirculation process involves the septic tank). Therefore, these systems cannot demonstrate the 60% nitrogen removal required because they cannot collect a raw wastewater sample while the SWTS is operating properly. To address this problem and to provide more guidance to developers and SWTS manufacturers/vendors

regarding the amount of data needed to classify a SWTS as level 2, the Department has prepared draft rule language for addition to the nondegradation rules (ARM 17.30 sub-chapter 7).

The proposed rule includes several new provisions:

- Allows classification of SWTS as level 2 without requiring extensive monitoring of the influent wastewater quality (although at least one single raw influent sample is still required, and can be collected at the time of system start-up before the recirculation process begins);
- Allows third party verification (United States Environmental Protection Agency/National Sanitation Foundation) of the treatment capabilities;
- Creates two new classifications of nitrogen reducing SWTS. These classifications are termed level 1a and 1b. These classifications were created to provide credit to SWTS that reduce nitrogen more than a conventional SWTS (typically consisting of a septic tank and drainfield), but do not remove enough nitrogen to be considered level 2;
- Allows the classification of a SWTS as level 2, 1a or 1b based only on the effluent nitrogen concentration;
- Includes specific requirements for the amount, frequency, time-frame, season, and climate where monitoring data is collected;
- Requires reliability of the SWTS and the authorized representative of the system; and
- Requires operation & maintenance contracts, scheduled inspections, and scheduled effluent monitoring for the life of the SWTS.

HEARING INFORMATION Thomas Bowe conducted a public hearing on March 24, 2004, on the proposed amendments and new rule. The Presiding Officer's Report and the draft Notice of Amendment and Adoption, with public comments and proposed responses, are attached to this executive summary.

BOARD OPTIONS The Board may:

1. Adopt the proposed amendments and new rule as set forth in the attached Notice of Public Hearing on Proposed Amendment and Adoption;
2. Adopt the proposed amendments and new rule with revisions that the Board finds are appropriate and that are consistent with the scope of the Notice of Public Hearing on Proposed Amendment and Adoption and the record in this proceeding; or
3. Decide not to adopt the amendments and new rule.

DEQ RECOMMENDATION The Department recommends that the Board adopt the amendments and new rule as proposed.

ENCLOSURES

1. Notice of Public Hearing on Proposed Amendment and Adoption;
2. Presiding Officer's Report; and
3. Draft Notice of Amendment and Adoption.